

REMARKS

Favorable reconsideration of this application, in view of the present amendments and in light of the following discussion, is respectfully requested.

Claims 1-7, 9-12, and 14-23 are pending. Claims 1, 4 and 20 are amended. No new matter is introduced.¹

In the outstanding Office Action, Claims 1-2, 4-7, 11-12 and 14-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Akimoto (U.S. Patent No. 6,464,789) in view of Slocum (U.S. Patent No. 5,733,024) and Cheng (U.S. Patent No. 6,802,935); Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Akimoto, Slocum, Cheng and Masayki (JP 10-012528); and Claims 9-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Akimoto, Slocum and Cheng in further view of Cakmakci (U.S. Patent No. 4,836,968).

Initially, Applicants gratefully acknowledge the courtesy of Examiner Ford in holding a personal interview with Applicants' representative on March 3, 2010. During the interview, the outstanding issues in this case were discussed as summarized herein below and in the Interview Summary, which the Examiner has made of record. Amendments and arguments discussed during the interview are presented below. No agreement was reached pending further search and consideration by the Examiner.

With regard to the rejection of Claims 1-2, 4-7, 11-12 and 14-23 as being unpatentable over Akimoto, Slocum and Cheng, Claim 1 is amended to recite, *inter alia*, a substrate processing apparatus that includes:

a transfer block comprising second transfer means provided adjacent to the carrier block and for transferring the substrate along a linear transfer path, said transfer block including at

¹ Non-limiting support for the amended claims may be found at least at paragraph [0052] of the pre-grant publication of this application.

least one utility unit including a plurality of connection ends for supplying *utilities external to the at least one utility unit*;

each process block including a chemical unit storing tanks of chemical solutions, a utility unit having connection ends configured to supply utilities, a liquid process unit having a *coating unit configured to apply a resist solution to the substrate and a developing unit configured to perform developing processing on the substrate after exposure to light, a heating unit configured to heat the substrate*, third transfer means for transferring the substrate between the units, and a second delivery stage configured to perform delivery of the substrate between said second transfer means and said third transfer means. (Emphasis added.)

It is believed that no cited reference describes these features.

Akimoto describes a substrate processing apparatus that prevents process failure due to over-bake of a substrate.² More specifically, Akimoto illustrates the processing apparatus as including a cassette station (2), which has a chemical box (10) housing a resist solution supply tank, a processing station (3) and an interface section (4).³ Akimoto also describes that the processing station (3) includes three resist coating processing units (8) and three developing processing units (9) *arranged at the front side* of the processing station (3), and several heat processing units (11) *arranged at the rear side* of the processing station (3).⁴

The outstanding Office Action appears to identify the chemical box (10) described in Akimoto as corresponding to the claimed at least one utility unit.⁵ However, Akimoto does not describe that the chemical box (10) provides resist solution to the processing units (8, 9) from an external source. Instead, Akimoto only describes that the chemical box (10) houses a resist solution supply tank and other equipment on the cassette station (2).⁶ In other words, Akimoto describes that the resist solution is stored in the chemical box itself, rather than being supplied by the chemical box from an external source. Conversely, amended Claim 1

² Akimoto at column 1, lines 58-61.

³ Akimoto at column 3, lines 1-10 and lines 33-35.

⁴ Akimoto at column 3, lines 23-40; see also Figures 1 and 2.

⁵ See the outstanding Office Action at page 2.

⁶ Akimoto at column 3, lines 33-36.

recites that the transfer block includes at least one utility unit including a plurality of connection ends for supplying utilities external to the at least one utility unit. Therefore, Akimoto fails to disclose this feature, and neither Slocum nor Cheng cure this deficiency.

Furthermore, the outstanding Office Action acknowledges that Akimoto does not describe process blocks including, *inter alia*, a coating unit, developing unit, and a heating unit.⁷ Nonetheless, the outstanding Office Action asserts that such a processing unit would be obvious from Akimoto.⁸ This assertion is respectfully traversed.

Akimoto is concerned with cooling of heat-processed wafers (W) to avoid damage thereto.⁹ To that end, Akimoto describes that placing the coating processing unit (8) at the front side of the processing station (3), and placing the heat processing unit (11) at the rear side of the processing station (3) prevents heat from the heat processing units (11) from being transferred to the resist coating units (8) and interfering with the coating process.¹⁰

Conversely, amended Claim 1 recites that each process block includes a coating unit to apply a resist solution to the substrate, a developing unit to perform developing processing on the substrate after exposure to light, *and a heating unit to heat the substrate*.

Applicants note that,

“A reference may be said to teach away when a person of ordinary skill in the art, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 31 U.S.P.Q.2d 1130, 1131 (Fed. Cir. 1994).

As such, Akimoto teaches away from the claimed process blocks as a person of ordinary skill in the art would be discouraged by Akimoto from placing the heat processing units (11) and the coating processing units (8) in a same process block to prevent heat from

⁷ See the outstanding Office Action at pages 3-4.

⁸ Id.

⁹ Akimoto at column 1, lines 58-61.

¹⁰ Akimoto at column 6, lines 42-50.

the heat processing units (11) from affection the coating process in the coating processing units (8). Therefore, Akimoto fails to disclose or suggest the claimed plurality of process blocks, and neither Slocum nor Cheng cure this deficiency. Accordingly, no combination of Akimoto, Slocum and Cheng describe every feature recited in amended Claim 1, and amended Claim 1 is believed to be in condition for allowance. Further, Claims 2-3 are also believed to be in condition for allowance at least by virtue of their dependency from amended Claim 1.

As amended Claims 4 and 20 recite features substantially similar to those recited in amended Claim 1, they are also believed to be in condition for allowance for substantially similar reasons, together with any claim dependent therefrom. Accordingly, it is respectfully requested that the rejection of Claim 1-2, 4-7, 11-12 and 14-23 under 35 U.S.C. § 103(a) be withdrawn.

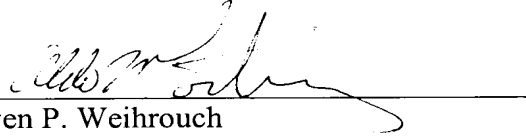
As all other rejections of record rely upon Akimoto for describing the above-distinguished features, and the above-distinguished features are neither disclosed nor suggested by Akimoto, alone or in combination with any other art of record, it is respectfully submit that a *prima facie* case of obviousness cannot be maintained. Accordingly, it is respectfully requested that the rejection of Claims 3 and 9-10 under 35 U.S.C. § 103(a) be withdrawn.

For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance for Claims 1-7, 9-12 and 14-23 is earnestly solicited.

Should, however, the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' representative at the below-listed telephone number.

Respectfully submitted,

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